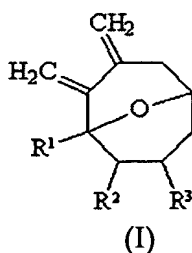


What is claimed is:

1. An 8-membered carbocyclic compound having diexomethylene groups which is represented by the following Chemical Formula 1:



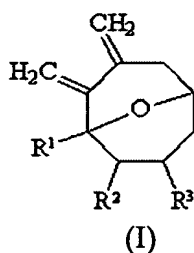
wherein R¹ is a phenyl group, and R² and R³ is respectively a hydrogen atom, or R¹, R² and R³ may be connected with neighboring substituents to form a 5 to 10-membered aliphatic or aromatic ring.

2. The compound according to Claim 1, wherein R¹ is a phenyl group, and R² and R³ is respectively a hydrogen atom.

3. The compound according to Claim 1, wherein R¹ and R² are connected with each other to form a 5 to 10-membered aliphatic or aromatic ring, and R³ is a hydrogen atom.

4. The compound according to Claim 1, wherein R² and R³ are connected with each other to form a 5 to 10-membered aliphatic or aromatic ring, and R¹ is a hydrogen atom.

5. A method of synthesizing the 8-membered carbocyclic compound having diexomethylene groups, represented by the following Chemical Formula 1, from a trimethylsilanylmethyl-allenol derivative by the intramolecular Prins cyclization in the presence of Lewis acid:



wherein R¹ is a phenyl group, and R² and R³ is respectively a hydrogen atom, or R¹, R² and R³ may be connected with neighboring substituents to form a 5 to 10-membered aliphatic or aromatic ring.

6. The method according to Claim 5, wherein a solvent selected from the group consisting of diethyl ether, tetrahydrofuran, dichloromethane and chloroform is used as reaction solvent.

7. The method according to Claim 5, wherein said Lewis acid is trimethylsilyl trifluoromethanesulfonate (TMSOTf) and is used in 1.0 to 1.5 equivalent of said trimethylsilanylmethyl-allenol derivative.

8. The method according to Claim 5, wherein the reaction proceeds in the temperature range from -90°C to room temperature of 25°C.

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